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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/702,361

11/06/2003

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EXAMINER

BARHAM, BETHANY P

ART UNIT

PAPER NUMBER

1615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/702,361	Applicant(s) MERLAU ET AL.	
	Examiner Bethany P. Barham	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Summary

Receipt is acknowledged of the Applicants' Amended Claims filed on 09/25/2006. Claims 1 and 7-9 are pending in this action. Claims 8-9 remain withdrawn. Claims 1 and 7 are rejected.

As a result of Applicant's amendments, the 35 USC §102 rejections over JP 103513/92 and WO 99/63955 (English translated) are hereby withdrawn. The following rejections of record (04/24/2006) are maintained.

Claim Rejections – 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,136,884 ('884).

- '884 disclose a latex composition for hair care (abstract). Said composition comprises a hybrid graft copolymer further comprising at least two distinct polymers (column 2, lines 38-43 and Claims 1-19). Specifically, the two distinct polymers used in the invention advanced by '884 can be a (1) sulfopolyester

copolymer and a (2) acid-functional polymer (Claims 1 and 17). Like the instant application, the polymer system advanced by '884 comprises homopolymer and copolymers derived from polyesters (column 4, lines 7-8), ethylenically unsaturated monomers (column 4, lines 44-65), and acid functionalized monomers, such as methacrylic acid (column 4, lines 16-43). The glass transition temperature (T_g) of the two polymers can also be different: (1) the T_g of the sulfopolyester group can be between about 15 to about 60° C, and (2) the T_g of the acid-functional polymer can be between about 40 to about 80° C (Claims 8 and 19, column 3, lines 43-44, and column 7, lines 12-20). Thus, like the instant application, the difference in T_g between the first polymer, an acid-functional polymer, and the second polymer, a sulfopolyester copolymer, can be 20° C or more. Giving the instant claim set the broadest reasonable interpretation, it is the examiner's position that the phrases a "first polymer or polymer mixture" and "a second polymer or polymer mixture" encompass graft copolymers comprising distinct polymer segments. The "first" segment of the graft copolymer is fused with the "second segment, resulting in a graft copolymer comprising a "mixture" of two distinct polymer segments. As set forth in '884, the glass transition temperature (T_g) of the two polymers can also be different: (1) the T_g of the sulfopolyester group can be between about 15 to about 60° C, and (2) the T_g of the acid-functional polymer can be between about 40 to about 80° C (Claims 8 and 19, column 3, lines 43-44, and column 7, lines 12-20). Thus, like the instant application, the difference in T_g between the first polymer, an acid-functional

polymer, and the second polymer, a sulfopolyester Copolymer, can be 20° C or more.

- Additionally, it should be noted that the preparation of the polymer-based composition using a multistage polymerization process is considered to be a process limitation. Giving the instant claim set its broadest reasonable interpretation, product-by-process claims are treated as product claims. As such, the process limitation is afforded no patentable weight.

The polymer system advanced by '884 can be dissolved together in a cosmetically acceptable solvent (column 8, lines 33-64). The hair care formulation can also be fashioned into a film (column 8, lines 14-32). It is the examiner's position that, inherently, when fashioned into a film, the composition advanced by '884 has a tensile storage modulus at 20° C of from about 1×10^1 Pascal to 1×10^8 Pascal and a storage modulus at 70° C of from about 1×10^9 Pascal to 1×10^6 Pascal. Since the essential elements of the '884 composition are identical to the instant compositions (that is, a composition comprising two polymers with different Tg values and a cosmetically acceptable solvent wherein the first polymer has a Tg between about 30 to about 250° C and the second polymer has a Tg between about 20 to about 35° C), the composition would inherently have the same physiochemical properties as the compositions set forth in the instant application. As such, it is the examiner's position that the composition advanced by '884 anticipates the compositions enumerated in the instant claim set. In conclusion, by disclosing a hybrid-graft polymer comprising a

mixture of two distinct polymer segments wherein the difference in Tg between the first and second segments can be 20° C or more, it is the examiner's position that the instant claims are anticipated by US Patent 6,136,884 ('884).

Response to Arguments

Applicant's arguments filed 10/31/2006 have been fully considered but they are not persuasive. Applicants argue that the sulfopolyester functionality is not present in their invention. But the examiner respectfully points out that applicants claim 1 states 'functional monomers' as a preferred embodiment, sulfopolyester is a polymer resulting from functional monomers (EASTMAN AQ ®-48 is a sulfopolyester made up of dicarboxylic acid moiety, glycol moiety, sodiosulfo moiety and a hydroxyl group). Further, according to the invention of '884 the composition for hair care comprises a hybrid-graft copolymer comprising a sulfopolyester, a first acid-functional polymer, and a second acid functional polymer (claim 12 of '884). Claim 15 of '884 further specifies that the first acid-functional polymer has a Tg of about 40 to about 80 °C, and a second acid functional polymer has a Tg of about 20 to about 50 °C, which also meets the limitation of amended claim 1 of the instant application. Thus, the claims are anticipated by '884.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bethany P. Barham whose telephone number is 571-272-6175. The examiner can normally be reached on M-F from 8:30am to 5pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

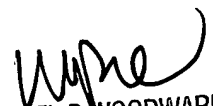
Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

B.P. Barham
Examiner-1615


MICHAEL P. WOODWARD
SUPERVISORY PATENT EXAMINER
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